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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,529	02/25/2004	Murali P. Kaudinya	SUN03-14(040486)	2776

7590

11/02/2005

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EXAMINER

LY, NGHI H

ART UNIT

PAPER NUMBER

2686

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/786,529	Applicant(s) KAUDINYA, MURALI P.	
	Examiner Nghi H. Ly	Art Unit 2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-26 and 28-32 is/are rejected.
- 7) ☒ Claim(s) 12 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9, 11, 13-20, 22-24, 26, 28-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Chan et al (US 6,128,389).

Regarding claims 1, 13, 31 and 32, Chan teaches in a transceiver, a method for authenticating operation of the transceiver with a control station within a wireless remote identification system (see Title and Abstract), the method comprising: receiving transceiver configuration information including a network address (see column 13, line 58 to column 14, line 5) and transceiver authentication credentials (see column 10, lines 39-49 and column 14, lines 34-40), receiving an authentication request from a control station within the remote identification system (see column 17, lines 4-64), applying authentication processing to request information within the authentication request in conjunction with the transceiver authentication credentials to produce an authentication response (see column 17, lines 4-64), and transmitting the authentication response to the control station to allow the control station to determine if the transceiver is authorized to communicate within the remote identification system (see column 17, lines 4-64).

Regarding claims 2 and 17, Chan further teaches receiving transceiver configuration information including a network address (see column 13, line 58 to column 14, line 5) and transceiver authentication credentials (see column 10, lines 39-49 and column 14, lines 34-40) comprises: performing address assignment processing to receive the network address; receiving transceiver authentication credentials including receiving:

- i) a transceiver identification code uniquely assigned to the transceiver (see column 10, lines 39-49 and column 14, lines 34-40); and
- ii) a transceiver instruction set containing a set of authentication values and corresponding authentication instructions (see column 17, lines 4-64).

Regarding claims 3 and 18, Chan further teaches periodically receiving replacement transceiver authentication credentials to replace the transceiver authentication credentials formerly received by the transceiver (see column 8, lines 34-44 and column 17, lines 18-24).

Regarding claims 4 and 19, Chan further teaches the request information within the authentication request includes:

- i) an request authentication result (see column 17, lines 4-64); and
- ii) a request data value; wherein applying authentication processing to request information within the authentication request in conjunction with the transceiver authentication credentials to produce an authentication response (see column 17, lines 4-64) comprises:

identifying an authentication instruction that matches the request authentication

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result; and applying the authentication instruction that matches the request authentication result to the request data value from the authentication request to produce the authentication response (see column 2, lines 25-29, column 11, lines 58-63 and column 17, lines 16-22).

Regarding claims 5 and 20, Chan further teaches identifying an authentication instruction that matches the request authentication result comprises: applying an authentication function to authentication values in the set of authentication values within the transceiver authentication credentials to produce corresponding transceiver authentication results (see column 17, lines 4-64); and for each transceiver authentication result produced, determining if the transceiver authentication result matches the request authentication result for that authentication value (see column 17, lines 4-64), and if the transceiver authentication result matches the request authentication result for that authentication value, performing the operation applying the authentication instruction to produce the authentication response (see column 2, lines 25-29, column 11, lines 58-63 and column 17, lines 16-22).

Regarding claims 7 and 22, Chan further teaches applying the authentication instruction that matches the request authentication result to the request data value from the authentication request to produce the authentication response (see column 2, lines 25-29, column 11, lines 58-63 and column 17, lines 16-22) comprises: applying the authentication instruction to the request data value in conjunction with the transceiver identification code to obtain the authentication response (see column 10, lines 39-49 and column 14, lines 34-40).

Regarding claims 8 and 23, Chan further teaches receiving an authentication request, applying authentication processing and transmitting the authentication response until at least one of:

i) an authentication acknowledgement is received from the control station indicating that the transceiver was successfully authenticated (see column 11, lines 58-63 and column 17, lines 34-38); and

ii) a number of repeated attempts to authenticate the transceiver each fail (see column 11, lines 58-63 and column 17, lines 34-38).

Regarding claims 9 and 24, Chan further teaches repeating the operations of receiving an authentication request, applying authentication processing and transmitting the authentication response and upon each repeated iteration of such operations, the authentication request specifies at least one of:

i) a different request authentication result for use by the transceiver to select an authentication instruction (see column 17, lines 4-64); and

ii) a different request data value for use by the transceiver during application of the selected authentication instruction (see column 17, lines 4-64).

Regarding claims 11 and 26, Chan further teaches receiving transceiver configuration information comprises: performing an automatic download operation to receive the transceiver authentication credentials during trusted time period of operation of the transceiver (see column 17, lines 4-64).

Regarding claims 14 and 29, Chan further teaches providing an authentication request from the control station within the remote identification system to the

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transceiver, the authentication request containing a request authentication result and a request data value comprises: selecting a transceiver authentication value from the transceiver authentication credentials; and applying an authentication function to the transceiver authentication value to produce the request authentication result for use in the authentication request (see column 17, lines 4-64).

Regarding claims 15 and 30, Chan further teaches determining if the authentication response answer is valid comprises: applying an authentication instruction corresponding to the selected transceiver authentication value to the request data value in conjunction with a transceiver identification code of the transceiver to which the authentication request was provided in order to produce a control station response; and comparing the control station response to the authentication response answer within the authentication response to determine if they are equivalent, and if they are equivalent, indicating that the authentication response answer is valid

Regarding claim 11, Chan further teaches.

Regarding claims 16 and 28, Chan further teaches a transceiver comprising: a memory (see column 7, lines 19-38); a processor (see column 7, lines 19-23); a communications interface (see column 7, lines 55-58); an interconnection mechanism coupling the memory, the processor, and the communications interface, the memory encoded with an authentication process that when executed by the processor (see column 7, lines 19-38), causes the transceiver authenticate operation of the transceiver with a control station within a wireless remote identification system by causing the transceiver to perform the operations of: receiving, via the communications interface,

transceiver configuration information including a network address and transceiver authentication credentials (see column 10, lines 39-49 and column 14, lines 34-40), receiving, via the communications interface, an authentication request from a control station within the remote identification system (see column 17, lines 4-64); applying authentication processing to request information within the authentication request in conjunction with the transceiver authentication credentials to produce an authentication response (see column 17, lines 4-64); and transmitting, via the communications interface, the authentication response to the control station to allow the control station to determine if the transceiver is authorized to communicate within the remote identification system (see column 17, lines 4-64).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al (US 6,128,389) in view of Phillips et al (US 6,721,555).

Regarding claims 6 and 21, Chan teaches claim 5. Chan does not specifically disclose the request authentication result is a hash value result produced from a hash function within the control station and wherein the authentication function is an equivalent hash function within the transceiver and wherein the request authentication

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result is calculated by the control station using the hash function on a copy of the authentication values in the set of authentication values within the transceiver authentication credentials that is programmed into the control station.

Phillips teaches the request authentication result is a hash value result produced from a hash function within the control station and wherein the authentication function is an equivalent hash function within the transceiver and wherein the request authentication result is calculated by the control station using the hash function on a copy of the authentication values in the set of authentication values within the transceiver authentication credentials that is programmed into the control station (see Title and column 6, lines 5-28).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Phillips into the system of Chan in order to provide a system for efficiently accommodating an authentication protocol in a communication network (see Phillips, Abstract).

5. Claims 10 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chan et al (US 6,128,389) in view of Bolle et al (US 6,819,219).

Regarding claims 10 and 25, Chan teaches claim 1. Chan does not specifically disclose the transceiver is an RFID transceiver and wherein the control station operates an RFID management application.

Bolle teaches the transceiver is an RFID transceiver and wherein the control station operates an RFID management application (see column 5, line 61 to column 6,

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line 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Bolle into the system of Chan in order to provide a system for efficiently accommodating an authentication protocol in a communication network (see Phillips, Abstract).

Allowable Subject Matter

6. Claims 12 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 12 and 27, Chan et al (US 6,128,389) teaches the method of claims 4 and 19. Chan fails to teach the identified authentication instruction is at least one of a roll forward and a roll back instruction and wherein the request data value indicates an amount by which to roll the instruction set and wherein applying the authentication instruction that matches the request authentication result to the request data value from the authentication request to produce the authentication response comprises: shifting a relationship position of the authentication instruction relative to the transceiver authentication values in the authentication credentials by an amount specified by the request data value, such that each transceiver authentication value in the authentication credentials corresponds to a different authentication instruction than prior to shifting the relationship position of the authentication instruction.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Chen (US 2005/0138355 A1) teaches system, method and devices for authentication in a wireless local area network (WLAN).

b. Asokan (US 2002/0161723 A1) teaches system and method of secure authentication and billing for goods and services using a cellular telecommunication and an authorization infrastructure.

c. Leung (US 6,760,444) teaches mobile IP authentication.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571) 272-7911. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on (571) 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi H. Ly

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